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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,901	11/06/2001	James F. Caruba	2001P21137 US	4554

7590 07/14/2003

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EXAMINER

GAGLIARDI, ALBERT J

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/985,901	Applicant(s) CARUBA ET AL.	
	Examiner Albert J. Gagliardi	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> . | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the leaf spring (claims 6 and 16) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 7, 9, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lingren *et al.* (US 5,786,597 A).

Regarding claim 1, *Lingren* discloses a high voltage distribution system (see generally Figs. 2, 3a, 4, 5a) for use with a cathode (col. 8, lines 17-21) of a radiographic sensor device (200) of a radiographic imaging apparatus (see generally Fig. 2) comprising: a conductor (means for applying bias voltage) formed on a first detector portion (206) and providing high voltage to the cathode (col. 8, lines 18-19); an intermediate conduction portion (bias voltage bus) electrically connected to the conductor and provided on the first detector portion (206), with the intermediate portion including a contact surface (inherent aspect of a bus); and a separable interconnect extending from a second signal processing portion (208) of the apparatus (col. 11, lines 44-48), the second portion (208) removably connected to the first portion (206) (col. 11, lines 8-18), the separable interconnect being coupled to a voltage source and positioned to come into contact with the contact surface of the intermediate conduction portion when the first detector portion (206) is assembled to the second signal processing portion (208) (col. 11, lines 43-48).

Regarding the conductor being insulated, the examiner notes that while *Lingren* does not specifically identify the conducting means as being insulated, those skilled in the art appreciate that the use of insulated conductors is well known and, absent some degree of criticality, considered a matter of routine design choice within the skill of a person of ordinary skill in the art depending on the needs of the particular application. The examiner further notes that it is also considered as generally desirable to provide insulation on conductors that carry a high voltage (such as the high voltage bias conductor) so as to improve safety and reliability.

Regarding claim 7, although not specifically disclosed, the use of metal pads (i.e., contact pads) to facilitate electrical connections is well known and considered routine in the art.

Regarding claim 9, the method recited according to claim 9 is suggested by the apparatus suggested by *Lingren* as applied to claim 1 above and is rejected accordingly.

Regarding claim 17, the method recited according to claim 17 is suggested by the apparatus suggested by *Lingren* as applied to claim 7 above and is rejected accordingly.

5. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lingren* as applied above, and further in view of Griesmer *et al.* (US 6,472,668 B1).

Regarding claim 2, although *Lingren* suggests that the bias connections are made by way of a pin arrangement (col. 10, lines 7-13; col. 11, lines 44-47), *Lingren* does not provide specific details of the arrangement including whether or not the separable interconnect is biased against the intermediate conduction portion.

Regarding biasing the separable interconnect against the intermediate conduction portion, the examiner notes that a wide variety of functionally equivalent means for making electrical connections are well known, including means wherein a separable interconnect is biased against an intermediate conduction portion (see for example *Griesmer* (Figs. 3, and 6; and col. 4, lines 45-58) wherein a separable interconnect (88) is biased against an intermediate portion (82) so as to allow for the application of a high voltage to an electrode of a radiographic imaging sensor). As such, an arrangement wherein the interconnect is biased (i.e., held by pressure) against the intermediate conduction portion is viewed as a matter of functionally equivalent alternative design choice that would have been obvious to a person of ordinary skill in the art depending on the needs of the particular application.

Regarding claim 12, the method recited according to claim 12 is suggested by the apparatus suggested by *Lingren* and *Griesmer* as applied to claim 2 above and is rejected accordingly.

6. Claims 3-5, 8, 10-11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lingren* and *Griesmer* as applied above and further in view of *Kato et al.* (US 5,727,954).

Regarding claim 3, in the apparatus suggested by *Lingren* and *Griesmer* as applied above, the separable interconnect extends from the second signal processing portion. Although *Lingren* and *Griesmer* do not specifically identify the separable interconnect as being movable, it is well known and considered a functionally equivalent alternative design choice to arrange for the separable interconnect to be movable in a plane (see for example *Kato* at Figs. 1-2) so as to allow for good electrical contact without excessive pressure.

Regarding claims 4 and 5, *Kato* suggests that the separable interconnect is deformable and comprises a coil spring (see generally Figs. 1-2).

Regarding claim 8, in the apparatus suggested by *Lingren*, *Griesmer* and *Kato* comprising a movably mounted separable interconnect (see explanation regarding claim 3 above), the detector portion and the signal processing portion are capable of moving a predetermined distance with respect to each other without breaking the electrical connection.

Regarding claims 10 and 11, the methods recited according to claims 10 and 11 are suggested by the apparatus suggested by *Lingren*, *Griesmer* and *Kato* as applied to claims 3 and 8 above and are rejected accordingly.

Regarding claims 13, 14 and 15, the methods recited according to claims 13, 14 and 15 are suggested by the apparatus suggested by *Lingren, Griesmer* and *Kato* as applied to claims 3-5 above and are rejected accordingly.

7. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lingren* and *Griesmer* as applied above and further in view of *Berlad et al.* (US 6,388,258 B1)

Regarding claim 6, *Berlad* discloses that it is known to arrange an interconnect as a biased leaf spring, such an arrangement being a matter of routine design choice that would have been obvious to a person of ordinary skill in the art depending on the needs of the particular application (see explanation regarding claim 2 above).

Regarding claim 16, the method recited according to claim 16 is suggested by the apparatus suggested by *Lingren, Griesmer* and *Berlad* as applied to claim 6 above and is rejected accordingly.

Conclusion

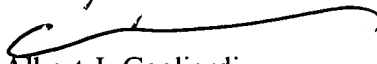
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert J. Gagliardi whose telephone number is (703) 305-0417. The examiner can normally be reached on Monday thru Friday from 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Albert J. Gagliardi
Examiner
Art Unit 2878

AJG
March 20, 2005